

REMARKS

Applicant appreciates the withdrawal of the previous rejections and the citation of new prior art references. Applicant has carefully examined the cited references and submits that many recitations of the independent and many dependent claims are not disclosed by the references, and submits that these references are not properly combinable to reject the pending claims. Accordingly, Applicant requests reconsideration and allowance of the pending claims in view of the following remarks.

Independent Claim 4 is Patentable Over Thornton in view of Vortman and Lin

Claim 4 has been rejected under 35 U.S.C. §103(a) as being unpatentable over United States Patent No. 6,665,293 to Thornton et al. ("Thornton") in view of U.S. Published Application 2003/0002479 to Vortman et al. ("Vortman") and further in view of U.S. Published Application 2004/0240430 to Lin et al. ("Lin"). Accordingly, the present rejection differs from the previous office action by the new citation of Vortman in combination with the previously cited Thornton and Lin references. Applicant submits that Vortman does not disclose the recitations of Claim 4 that are missing from Thornton and Lin, and that these three references are not properly combinable to reject Claim 4.

Claim 4 was amended in the previous Amendment to emphasize that the method is carried out at a phone network interface that receives an analog phone call signal from a phone and that selectively converts the analog phone call signal to a digital VoIP phone call signal. Claim 4 recites:

4. A method of routing phone calls in a communication system, the method comprising:
within a phone network interface, selectively carrying out based on a called number to which a phone call is directed: 1) routing the phone call received as an analog signal from a phone through an analog phone line for communication to a local access phone provider and across a public switched telephone network (PSTN); or 2) converting the analog phone call signal to a digital Voice-Over-Internet-Protocol (VoIP) phone call signal and routing the digital VoIP phone call signal to a broadband network modem device for communication to a local access Internet provider and across a packet switched network.

Accordingly, a **phone network interface** responds to a called number by either routing a phone call as an analog phone call signal from a phone through an analog phone

line for communication to a local access phone provider, or converting the analog phone call signal to a digital VoIP phone call signal which it routes to a broadband network modem device for communication to a local access Internet provider and across a packet switched network.

An exemplary embodiment of Claim 4 is shown by Figure 1 in which a phone network interface 110 selectively routes an analog phone call signal from phone 100 through an analog phone line for termination by a local access phone provider 122 or converts the analog phone call signal to a digital VoIP phone call signal which it routes through a broadband network modem device 114 to a local access Internet provider 124 based on a called number to which the phone call is directed. Thus, for example, a 911 emergency phone call from the phone 100 may be routed by the phone network interface 110 as analog calls to the local access phone provider 122 and PSTN 130 and to a "911 emergency response center" 150, while other phone calls may be converted to VoIP phone calls and routed through the broadband access device 114, local access Internet provider 124, and Internet 140, to a VoIP provider 160.

In rejecting Claim 4, the Office Action contends on pages 3-4 that Thornton teaches the following:

selectively routing a phone call through an analog phone line to a local access phone provider (col. 10, lines 20-24), and gateway 200 is part of a local access phone provider, for communication across a PSTN (col. 7, lines 1-8; col. 11, lines 45-48; col. 29, lines 10-17) or converting the phone call to a VoIP phone call.

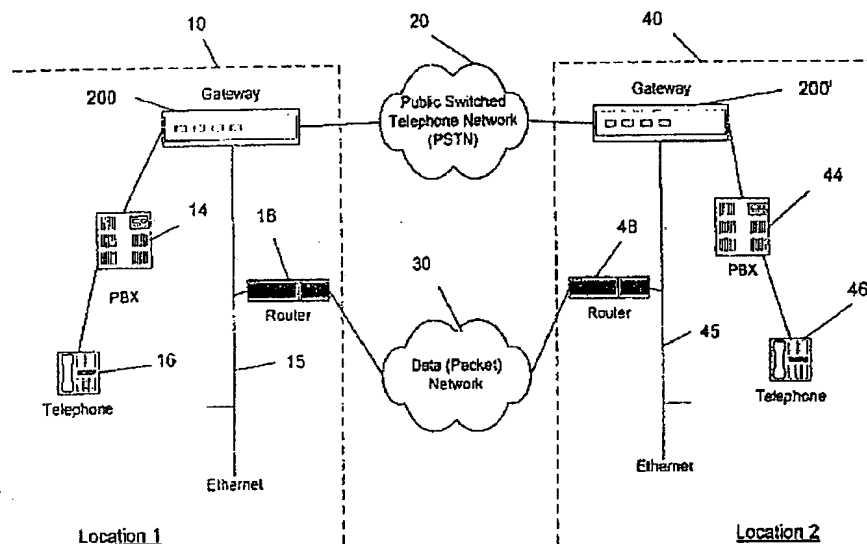
Applicant disagrees and submits that Thornton does not disclose at least the following recitations of Claim 4:

- 1) a **phone network interface** that selectively outputs an analog phone call signal or a digital VoIP phone call signal;
- 2) a **phone network interface** that converts an analog phone call signal to a digital VoIP phone call signal; and
- 3) a **phone network interface** that responds to a called number by selectively routing a phone call as an analog phone call signal from a phone through an analog phone line for communication to a local access phone provider, or converts the analog phone call signal to a

digital VoIP phone call signal which it routes to a broadband network modem device for communication to a local access Internet provider and across a packet switched network.

Thornton shows in FIG. 1, below, and describes that telephone 16 is connected to a local access phone provider that includes private branch exchanges (PBX) 14 and 44, PSTN 20, a data (packet) network 30, and gateways 200 and 200'.

FIG. 1 of Thornton



The PBX 14 performs incoming call termination (terminating an analog incoming call and generating a digital outgoing call) from telephone 16 and outgoing line selection through the gateway 200 to a central office for tens, hundreds or thousands of telephones (one which is shown as 16). (Thornton, Col. 10, lines 5-30). The gateway 200 is "situated between PBX 14 and the PSTN". (Thornton, Col. 10, lines 52-58). Accordingly, as shown in FIG. 1, the gateway 200 interconnects the PBX 14 network with the PSTN 20 and data network 30. This is consistent with the definition provided by Microsoft Press Computer Dictionary, Third Edition, for the phrase "gateway" as "a device that connects networks using different communications protocols so that information can be passed from one to the other." The gateway 200 selectively routes calls over the data network 30 to provide effective cost savings to the calling parties and/or their organizations. (Thornton, Col. 6, lines 63-67).

The Office Action contends that the gateway 200 carries out a selective routing of phone calls. However, because the gateway 200 receives the output of the PBX 14, it is within a local access phone provider. Moreover, Thornton describes that the PBX 14 terminates the call from the phone 16 and generates therefrom a digital signal that is communicated to the gateway 200 and, consequently, the gateway 200 routes a digitized phone call from the PBX 14 to the PSTN 20. More particularly, Thornton describes the PBX 14 as follows:

PBX 14 would select an outgoing telephone line to a central office switch (for a relatively large PBX, this amounts to selecting an available time slot in an outgoing, e.g., T1 trunk).

(Thornton, Col. 10, lines 28-31, emphasis added).

Accordingly, the PBX 14 converts the analog phone signal into a digital signal that is communicated via a slot within a digital time multiplexed protocol for a T1 trunk. Although the PBX 14 converts an analog phone signal into a digital signal, it does not selectively choose between carrying out that conversion and not carrying out that conversion based on the called telephone number. The gateway 200 selectively routes a digital phone call signal, not an analog phone call signal, based on the called number. However, as explained above, the gateway 200 is within a local access phone provider, not within a phone network interface that interfaces to a phone. Consequently, neither the PBX 14 nor the gateway 200 selectively routes an analog phone call signal through an analog phone line for communication to a local access phone provider.

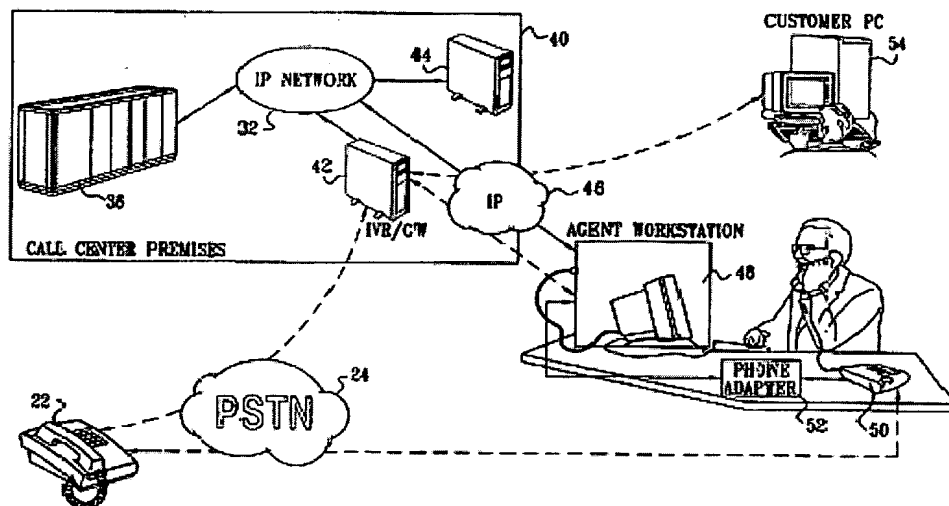
Thornton describes that the gateway 200 selectively routes a phone call through the PSTN 20 or as a VoIP call through the data network 30. However, because the gateway 200 receives a digital phone call signal from the PBX 14, as explained above, the gateway 200 does not selectively convert an analog phone call signal to a digital VoIP phone call signal and route that signal to a broadband network modem device. Moreover, as conceded by the Office Action, Thornton does not disclose a broadband network modem device.

Thornton describes the data network 30 as "a conventional private IP data (packet) network 30 that inter-connects, via routers 18 and 48, two illustrative Ethernet-based local area networks (LANs) 15 and 45 ... [so that devices situated at two locations 1 and 2] for the same customers [are interconnected] through these LANs". (Thornton, Col. 9, lines 54 - Col.

10, line 4). Accordingly, the data network 30 is a private network, not the Internet. As explained above, the gateway 200 is part of a local access phone provider, not part of a phone network interface that can communicate through a broadband network modem device with a local access Internet provider. Consequently, the gateway 200 does not selectively route a digital VoIP phone call signal through a broadband network modem device for communication to a local access Internet provider.

The Office Action on page 4 cites Vortman for describing "routing an analog signal through an analog phone line to a local access phone (figs. 2 and 3; page 2, para. 9)." However, as shown in FIG. 2 below and described in paragraph 9 of Vortman, the routing of calls between the PSTN and over the Internet is carried out at a "routing server in the call center" within the call center premises 40 of a local access phone provider.

FIG. 2 of Vortman



Consequently, Vortman is similar to Thornton in that Vortman also does not disclose at least the following recitations of Claim 4:

- 1) a **phone network interface** that selectively outputs an analog phone call signal or a digital VoIP phone call signal;
- 2) a **phone network interface** that converts an analog phone call signal to a digital VoIP phone call signal; and
- 3) a **phone network interface** that responds to a called number by selectively routing a phone call as an analog phone call signal from a phone through an analog phone line for

communication to a local access phone provider, **or** converts the analog phone call signal to a digital VoIP phone call signal which it routes to a broadband network modem device for communication to a local access Internet provider and across a packet switched network.

The Office Action cites Lin only for its general description of a cable modem and a DSL modem. In particular, the Office Action contends that "it would have been obvious ... that it is necessary to use any of a traditional modem such as: a DSL modem or a broadband network modem to connect a telephone call to the data network or Internet ..., [t]his is the only way a user can communicate to the Internet." (Office Action, Page 5).

Consequently, Applicant submits that Thornton, Vortman, and Lin if combined do not disclose at least the following recitations of Claim 4:

- 1) a **phone network interface** that selectively outputs an analog phone call signal or a digital VoIP phone call signal;
- 2) a **phone network interface** that converts an analog phone call signal to a digital VoIP phone call signal; and
- 3) a **phone network interface** that responds to a called number by selectively routing a phone call as an analog phone call signal from a phone through an analog phone line for communication to a local access phone provider, **or** converts the analog phone call signal to a digital VoIP phone call signal which it routes to a broadband network modem device for communication to a local access Internet provider and across a packet switched network.

Moreover, Applicant submits that Thornton, Vortman, and Lin are not properly combinable to reject Claim 4. In particular, Thornton teaches away from the recitations of Claim 4 because Thornton teaches that the gateway 200 is connected between the PBX 14 and the private data network 14 inside of a local access phone provider, where the gateway 200 routes either a digital signal to the PSTN or a digital VoIP signal to the private data network 30. Similarly, Vortman teaches away from the recitations of Claim 4 because Vortman teaches that call routing between the PSTN and the Internet is carried out at a "routing server in the call center" within the call center premises 40 of a local access phone provider. Accordingly, if Thornton is combined with Vortman, the combined teachings would carry out call routing within a local access phone provider/call center premises where digital call signals would be routed to a PSTN or converted to a VoIP signal and routed.

When Lin is combined with Thornton and Vortman, Lin's general description of a cable modem and a DSL modem does not alter the teachings of the other references as to routing being carried out within a phone provider/call center premises using digital phone signals. Applicants submit that the Office Action has not provided the required motivation from Thornton, Vortman, and Lin themselves as to why a person who is skilled in the art would modify Thornton so that the gateway 200, in some unknown fashion, may be moved out of the local access telephone provider and positioned between the telephone 14 and PBX 14 so that it could then selectively route an analog phone call signal via an analog phone line to a local access telephone provider, or convert the analog phone call signal into a digital VoIP phone call signal and route that digital signal through the cable modem or DSL modem, disclosed by Lin, to a local access Internet provider.

Because many recitations of Claim 4 are not disclosed by Thornton, Vortman, and Lin, and because Thornton, Vortman, and Lin are not properly combinable to reject Claim 4, Applicant submits that Claim 4 is patentable over Thornton in view of Vortman and Lin. For at least these reasons, Applicant submits that amended Claim 4 is patentable over Thornton in view of Vortman and Lin.

The dependent Claims 2-3 and 5-12 are patentable per the patentability of independent Claim 4 from which they depend.

Independent Claim 16 is Patentable Over Thornton in view of Vortman and Lin

Claim 16 stands rejected under 35 U.S.C. §103(a) as unpatentable over Thornton in view of Vortman and in view of Lin.

Claim 16 recites:

16. (Currently Amended) A phone adapter comprising:
 - a phone interface that is configured to be communicatively connected to a phone via an analog phone line;
 - a PSTN interface that is configured to be communicatively connected to a public switched telephone network (PSTN) via an analog phone line;
 - an Internet interface that is configured to be communicatively connected to a broadband network interface device that can be communicatively connected to the Internet; and
 - a controller that is configured to selectively: 1) route an analog phone call signal that is received through the phone interface from a phone through the PSTN interface and an analog phone line to a local access phone provider or 2) convert the

analog phone call signal to a digital Voice-Over-Internet-Protocol (VoIP) phone call signal and route the digital VoIP phone call signal through the Internet interface to the broadband network interface device to a local access Internet provider for communication across a packet switched network based on a called number to which the phone call is directed.

Claim 16 includes similar recitations to Claim 4 and is submitted to be patentable over Thornton in view of Vortman and Lin for at least the reasons explained above for Claim 4.

Moreover, Claim 16 provides further bases for patentability over Thornton, Vortman, and Lin. In Claim 16, the controller receives the analog phone call signal through the phone interface from a phone, and selective routes that analog phone call signal through the PSTN interface via an analog phone call line to a local access phone provider, or converts the analog phone call signal into a digital VoIP phone call signal which it routes through the Internet interface to the broadband network interface device to the local access Internet provider.

The Office Action concedes on page 8 that Thornton does not disclose these recitations of Claim 16, but then cites a phone adapter 52 of Vortman. However, the phone adapter 52 of Vortman selectively connects a smartphone 92 within a workstation 48 to a phone line 70 or connects a POTS phone 50 to the phone line 70. Nowhere does Vortman disclose that the phone adapter 52 selectively: 1) routes an analog phone call signal through a PSTN interface via an analog phone call line to a local access phone provider; or 2) converts the analog phone call signal into a digital VoIP phone call signal which it routes through an Internet interface to a broadband network interface device to a local access Internet provider. Again, as was explained above with regard to Claim 4, Vortman describes that selective routing of phone calls between the PSTN and over the Internet is carried out at a "routing server in the call center" within the call center premises 40 of a local access phone provider. Consequently, Vortman does not disclose the above recitations of Claim 16 that are missing from Thornton and Lin.

For at least these reasons, Claim 16 is submitted to be patentable over Thornton in view of Vortman and Lin.

The dependent Claims 14, 15, 17, and 18 are patentable per the patentability of independent Claim 16 from which they depend.

In re: Laura Reid
Serial No.: 10/653,670
Filed: September 2, 2003
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CONCLUSION

In light of the above amendments and explanations, Applicants submit that the present application is in condition for allowance, which action is respectfully requested. If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned attorney at (919) 854-1400.

Respectfully submitted,

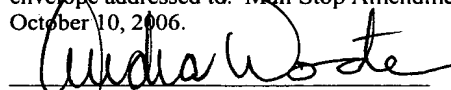


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Audra Wooten